Amendments to the Claims

The following listing of the claims will replace all prior versions, and listings of the claims in the application:

Listing of Claims

1. (Currently Amended) An image forming system comprising an image forming apparatus which receives print data from a host apparatus and performs an image formation based on the print data,

the host apparatus comprising:

~~a host having a communication function unit; and~~

a general-purpose communication unit; and

a first setup processing section that performs a setup of the communication unit, and

an image forming apparatus ~~having~~ comprising:

a first communication unit having a first port number; [[,]]

a second communication unit having a second port number; ~~, and~~

a relay unit[[,]];

a second setup processing section that performs a setup of the first communication unit and the second communication unit;

a first language processing section to process a first language; and

a second language processing section to process a second language;

wherein the host apparatus further comprises a first transfer control unit that obtains from the image forming apparatus first plug and play (PnP) information used for processing the first language by the first communication unit and second PnP information used for processing the second language by the second communication unit, and registers port number information that are contained in the first and the second PnP information and which correspond respectively to the first and the second communication units, the first transfer control unit, after registering the port number information, specifying a transfer destination of the print data and notifying the image forming apparatus of the destination of the print data, and

wherein the image forming apparatus further includes a second transfer control unit, the second transfer control unit transferring the print data formed in the first language to the first language processing section via the first communication unit; and transferring the print data formed in the second language to the second language processing section via the second communication unit.

~~wherein said first communication unit communicates data with said communication function unit via said relay unit in a first page description language (PDL) and said second communication unit communicates the data with said communication function unit via said relay unit in a second PDL different from the first PDL.~~

2-3. (Canceled)

4. (Currently amended) The image forming system according to claim 1, wherein

said image forming apparatus ~~has~~ further comprises a function information communication unit which communicates function information of at least one of said first and second communication units via said relay unit, and wherein

said host obtains the function information from said function information communication unit via said relay unit by said communication function unit, discriminates whether said function information corresponds to the host or not, and if it does not correspond to the host, notifies of such a fact.

5. (Original) The image forming system according to claim 4, wherein when a function information obtaining request of at least one of said first and second communication units is received from said host, said function information communication unit communicates function information of a processing apparatus connected to the relevant communication unit via said relay unit.

6. (Canceled)

7. (Original) The image forming system according to claim 1, wherein said relay unit and said host are connected by a set of I/F capable of receiving and transmitting.

8. (Amended) The image forming system according to claim 7, wherein said relay unit and said host are connected by an I/F cable of a universal serial bus (USB) ~~USB~~.

9. (Currently Amended) An image forming apparatus which receives print data from a host apparatus having a general-purpose communication unit and which performs an image formation based on the print data, comprising:

a first communication unit that communicates with the general-purpose communication unit;

a second communication unit that communicates with the general-purpose communication unit;

a relay unit ~~to which a host, a first communication unit, and a second communication unit are connected~~ that performs a relay between the general-purpose communication unit and the first communication unit or the second communication unit;

a setup processing section that performs a setup of the first communication unit and the second communication unit;

a transfer control unit;

a first language processing section to process a first language; and

a second language processing section to process a second language;

wherein the first communication unit is notified of the print data using the first language from the host apparatus on the basis of port information contained in a first plug and play (PnP) information used for processing the first language in the first communication unit;

wherein the second communication unit is notified of the print data using a second language from the host apparatus on the basis of port information contained in a second PnP information used for processing the second language in the second communication unit; and

wherein the transfer control unit transfers the print data using the first language to the first language processing section via the first communication unit; and transfers the print data using the second language to the second language processing section via the second communication unit.

~~said first communication unit which communicates data with said host via said relay unit in a first page description language (PDL); and~~

~~said second communication unit which communicates the data with said host via said relay unit in a second PDL different from the first PDL.~~

10-11. (Canceled)

12. (Currently amended) The image forming apparatus according to claim 9, further comprising:

a function information communication unit which communicates function information of at least one of said first and second communication units via said relay unit, ~~and~~ wherein said host obtains the function information from said function information communication unit via said relay unit by said communication function unit, discriminates whether said function information corresponds to the host or not, and if it does not correspond to the host, notifies of such a fact.

13. (Original) The image forming apparatus according to claim 12, wherein when a function information obtaining request of at least one of said first and second communication units is received from said host, said function information communication unit communicates function information of a processing apparatus connected to the relevant communication unit via said relay unit.

14. (Canceled)

15. (Original) The image forming apparatus according to claim 9, wherein said relay unit and said host are connected by a set of I/F capable of receiving and transmitting.

16. (Original) The image forming apparatus according to claim 15, wherein said relay unit and said host are connected by an I/F cable of USB.

17. (Previously Presented) The image forming system according to claim 1, wherein the image forming system further includes a first language processing unit that processes data

received by the first communication unit as the first PDL, and a second language processing unit that processes data received by the second communication unit as the second PDL.

18. (Previously Presented) The image forming system according to claim 17, wherein the image forming system further includes a development processing unit that converts a display list processed by the first language processing unit and a display list processed by the second language processing unit into image data and sends the image data to an engine.

19. (Previously Presented) The image forming system according to claim 1, wherein the host further includes a first printer driver that converts an output of an application into the first PDL, and a second printer driver that converts the output of the application into the second PDL different from the first PDL.

20. (Previously Presented) The image forming system according to claim 1, wherein the image forming system further includes a first buffer that stores data received by the first communication unit in the first PDL, and a second buffer that stores data received by the second communication unit in the second PDL.

21. (Previously Presented) The image forming apparatus according to claim 9, further comprising:

a first language processing unit that processes data received by the first communication unit as the first PDL; and

a second language processing unit that processes data received by the second communication unit as the second PDL.

22. (Previously Presented) The image forming apparatus according to claim 21, further comprising:

a development processing unit that converts a display list processed by the first language processing unit; and

a display list processed by the second language processing unit into image data and sends the image data to an engine.

23. (Previously Presented) The image forming apparatus according to claim 9, wherein the host has a first printer driver that converts an output of an application into the first PDL, and a second printer driver that converts the output of the application into the second PDL different from the first PDL.

24. (Previously Presented) The image forming apparatus according to claim 9, further comprising:

a first buffer that stores data received by the first communication unit in the first PDL; and

a second buffer that stores data received by the second communication unit in the second PDL.

25. (New) The image forming system according to claim 1,

wherein the host apparatus further comprises:

a first language printer driver that generates the print data using the first language and requests the first transfer control unit to transfer the generated print data using the first language; and

a second language printer driver that generates the print data using the second language and requests the first transfer control unit to transfer the generated print data using the second language,

wherein the first setup processing section of the host apparatus respectively decides interfaces and notifies the image forming apparatus of respective interface ID information, the second setup processing section of the image forming apparatus respectively setting the notified interface ID information to the first and the second communication units.

26. (New) The image forming system according to claim 1,

wherein the first transfer control unit notifies that a new device is detected when a driver corresponding to port information does not exist.

27. (New) The image forming system according to claim 25,

wherein the first transfer control unit notifies that a new device is detected when a driver corresponding to port information does not exist.

28. (New) The image forming apparatus according to claim 9, wherein

the second transfer control unit transfers the first PnP information to the host apparatus for using a first language printer driver that generates the print data using the first language and requests to transfer the generated print data using the first language in the host apparatus, transfers the second PnP information to the host apparatus for using a second language printer driver that generates the print data using the second language and requests to transfer the generated print data using the second language in the host apparatus, and receives interface ID information from the host apparatus; and

the second setup processing section respectively sets the received interface ID information to the first and the second communication units.